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|-------------------------------|------------------------|---------------------|--|
| Notice of Allowability | Application No. | Applicant(s) | |
| | 09/399,696 | CHOU ET AL. | |
| | Examiner | Art Unit | |
| | HUNG Q. PHAM | 2168 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to 08/31/06.
2. The allowed claim(s) is/are 1-3,7-9,13-15,19-21,25 and 26.
3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some*
 - c) None
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application
6. Interview Summary (PTO-413),
Paper No./Mail Date 11/10/06.
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.



Hung Pham
Examiner
AU 2168

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicants' representative, RUTHLEEN E. UY, on 11/06/2006.

In the Claims filed 08/31/2006, please

REPLACE claims 1-3, 7-9, 13-15, 19-21, 25 and 26 by claims 1-3, 7-9, 13-15, 19-21, 25 and 26 (without underlined and cross marked), which were amended by examiner as below:

Claim 1. A method for searching for data in one or more heterogeneous data sources within a computer system, the method comprising:

receiving, from a user, a request for data at a federated datastore, wherein the federated datastore comprising a plurality of datastores and at least one of the plurality of datastores is a Domino Extended Search datastore;

selecting one of a plurality of Remote Method Invocation (RMI) servers to process the received request based on the load of the selected RMI server and based on whether the selected RMI server can satisfy the received request for data, said selected RMI server connected to one or more heterogeneous datastores; and

providing to the user data corresponding to the received request from the one or more heterogeneous datastores;

wherein the plurality of RMI servers form a server hierarchy;

wherein upon receiving a request to add an additional RMI server, connecting the additional RMI server to an existing RMI server in the server hierarchy based on a number of connections of the existing RMI server; and

wherein upon receiving a request to delete an existing RMI server in the hierarchy, deleting that RMI server.

Claim 2. *The method of claim 1; further comprising forwarding the received request to the selected RMI server.*

Claim 3. *The method of claim 2, further comprising forwarding additional requests for similar data to the selected RMI server.*

Claim 7. *An apparatus for searching for data in one or more heterogeneous data sources, comprising:*

a computer system having one or more heterogeneous data sources; and one or more computer programs, performed by the computer system, for

receiving a request for data at a federated datastore, wherein the federated datastore comprising a plurality of datastores and at least one of the plurality of datastores is a Domino Extended Search datastore;

selecting one of a plurality of Remote Method Invocation (RMI) servers to process the received request based on the load of the selected RMI server and based on whether the selected RMI server can satisfy the received request for data, said selected RMI server connected to one or more heterogeneous datastores; and

providing to the user data corresponding to the received request from the one or more heterogeneous datastores;

wherein the plurality of RMI servers form a server hierarchy;

wherein upon receiving a request to add an additional RMI server, connecting the additional RMI server to an existing RMI server in the server hierarchy based on a number of connections of the existing RMI server; and

wherein upon receiving a request to delete an existing RMI server in the hierarchy, deleting that RMI server.

Claim 8. *The apparatus of claim 7, further comprising forwarding the received request to the selected RMI server.*

Claim 9. *The apparatus of claim 8, further comprising forwarding additional requests for similar data to the selected RMI server.*

Claim 13. *An article of manufacture comprising a program storage medium readable by a computer system and embodying one or more instructions executable by the computer system to perform method steps for searching for data in one or more heterogeneous data sources within a computer system, the method comprising:*

receiving, from a user, a request for data at a federated datastore, wherein the federated datastore comprising a plurality of datastores and at least one of the plurality of datastores is a Domino Extended Search datastore;

selecting one of a plurality of Remote Method Invocation (RMI) servers to process the received request based on the load of the selected RMI server and based on whether the selected RMI server can satisfy the received request for data, said selected RMI server connected to one or more heterogeneous datastores; and

providing to the user data corresponding to the received request from the one or more heterogeneous datastores;

wherein the plurality of RMI servers form a server hierarchy;

wherein upon receiving a request to add an additional RMI server, connecting the additional RMI server to an existing RMI server in the server hierarchy based on a number of connections of the existing RMI server; and

wherein upon receiving a request to delete an existing RMI server in the hierarchy, deleting that RMI server.

Claim 14. *The article of manufacture of claim 13, further comprising forwarding the received request to the selected RMI server.*

Claim 15. *The article of manufacture of claim 14, further comprising forwarding additional requests for similar data to the selected RMI server.*

Claim 19. *The method of claim 1, wherein the load of the selected RMI server is based on at least the ratio of a current load of the selected RMI server and a maximum load of the selected RMI server.*

Claim 20. *The apparatus of claim 7, wherein the load of the selected RMI server is based on at least the ratio of a current load of the selected RMI server and a maximum load of the selected RMI server.*

Claim 21. *The article of manufacture of claim 13, wherein the load of the selected RMI server is based on at least the ratio of a current load of the selected RMI server and a maximum load of the selected RMI server.*

Claim 25. *The method according to claim 1, wherein said federated data store comprises a virtual datastore which combines one or more heterogeneous datastores into a consistent and unified conceptual view.*

Claim 26. *The method according to claim 1, wherein said server hierarchy comprises a tree hierarchy.*

Allowable Subject Matter

The above Claims 1-3, 7-9, 13-15, 19-21, 25 and 26 are allowed.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q. PHAM whose telephone number is 571-272-4040. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIM T. VO can be reached on 571-272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


HUNG Q PHAM
Examiner
Art Unit 2168

November 10, 2006